Arsenii Ashukha

PhD Candidate at Bayesian Methods Research Group
Student Researcher Samsung AI Center Moscow
Home page Google Scholar

EDUCATION

- PhD Candidate, ***National Research University Higher School of Economics***, 2017 - Now
  Topic: Probabilistic deep learning, Advisor: Dmitry Vetrov
- MSc in Applied Math and Computer Science, **Moscow Institute of Physics and Technology**, 2017 (with distinction)
  Thesis: *Sparsification of DNNs probabilistic framework*, Advisors: Dmitry Vetrov and Alexey Dral
- BSc in Applied Math and Computer Science, **Bauman Moscow State Technical University**, 2015
  Thesis: Bigram anchor words topic modeling, Advisor: Natalia Loukachevitch

PROFESSIONAL EXPERIENCE

- Student Researcher at ***Samsung AI Center*** (2018 - Now):
  Research on probabilistic deep learning, ensembles of DNNs, uncertainty estimation.
- Student Researcher at ***Yandex Research*** & ***University of Amsterdam*** (2017 - 2018):
  Research on Bayesian deep learning for a group-level sparsification and uncertainty estimation.
- Research Intern at ***Lab of Deep Learning and Bayesian Methods HSE*** (2016 - 2017):
  Research on Bayesian deep learning for sparsification and incremental learning.

My responsibility included: selecting research directions, scheduling and executing research agenda, development of machine learning models and algorithms, writing papers.

PUBLICATIONS

- Dmitry Molchanov*, Alexander Lyzhov*, Yuliya Molchanova*, **Arsenii Ashukha***, Dmitry Vetrov
  Greedy Policy Search: A Simple Baseline for Learnable Test-Time Augmentation, UAI (2020).
- **Arsenii Ashukha***, Alexander Lyzhov*, Dmitry Molchanov*, Dmitry Vetrov
  Pitfalls of In-Domain Uncertainty Estimation and Ensembling in Deep Learning, ICLR (2020).
- Kirill Neklyudov*, Dmitry Molchanov*, **Arsenii Ashukha*,** Dmitry Vetrov
  Variance Networks: When Expectation Does Not Meet Your Expectations, ICLR (2019).
- Andrei Atanov*, ***Arsenii Ashukha****, Kirill Struminsky, Dmitry Vetrov, Max Welling
  The Deep Weight Prior, ICLR (2019).
- Andrei Atanov, **Arsenii Ashukha**, Dmitry Molchanov, Kirill Neklyudov, Dmitry Vetrov,
  Uncertainty Estimation via Stochastic Batch Normalization, Workshop Track ICLR (2018).
- Kirill Neklyudov, Dmitry Molchanov, **Arsenii Ashukha**, Dmitry Vetrov
  Structured Bayesian Pruning via Log-Normal Multiplicative Noise, NeurIPS (2017).
- Dmitry Molchanov*, **Arsenii Ashukha***, Dmitry Vetrov
  Variational Dropout Sparsifies Deep Neural Networks ICML (2017).

Full list: scholar.google.com/citations?user=IU-kuP8AAAAJ. *equal contribution.

MISCELLANEOUS

- **Reviewing:**
  - Conferences: ICML (2019, 2020), NeurIPS 2019 (top-50% highest-scoring reviewers), ICLR 2020
  - Workshops: INNF (2019, invertibleworkshop.github.io), BDL (since 2017, bayesiandeeplearning.org)
- **Thesis (co-)supervision**:
  - Alexander Lyzhov
    - Deep Neural Network Ensembles: Analysis and Approaches to Diversification (MSc, 2020)
  - Andrei Atanov
    - Effective Learning of Deep Neural Networks Ensembles (BSc, 2018)
    - Learning Deep Models with Small Data (MSc, 2020)
  - Evgenii Nikishin (MSc, 2019)
    - Stability Improvement and Knowledge Transfer in Deep Reinforcement Learning (MSc, 2019)
- **Teaching:**
  - Machine Learning at MIPT: TA (2016), Lecturer (2017, 2018)
  - Supervisor of scientific seminars on machine learning at HSE and Yandex (since 2017)
  - TA at **Deep|Bayes** Summer School on Bayesian Deep Learning (since 2017), http://deepbayes.ru
- **Open-source contributions**: See https://github.com/senya-ashukha.